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ATTORNEY DOCKET NO. CONFIRMATION NO.

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR 10/686,899 10/16/2003 Anil Varma 20-LC-1965 7546 CON/624226-381 23458 7590 07/28/2005 EXAMINER GENERAL ELECTRIC COMPANY HOLMES, MICHAEL B TRANSPORTATION SYSTEMS **BUILDING 50, LEGAL OPERATIONS** ART UNIT PAPER NUMBER 2901 EAST LAKE ROAD 2121 ERIE, PA 16531

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary    Total Resember   Communication   Examiner   Communication		&	
Examinor   Art Unit		Application No.	Applicant(s)
Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE (2) MONTH(S) FROM THE MAILLING DATE of this communication appears on the cover sheat with the correspondence address  Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE (2) MONTH(S) FROM THE MAILLING DATE OF THIS COMMUNICATION.  Edervising of time may be available under the proteions of 37 CFR 1.136(a). In no senth, however, may a reply be timely filled series 1% (6) MONTHS from the mainligidate of this communication.  If the period for reply seatfield above is less than bridly (30) days, a reply withon the set or extended period for negly in the set of section of the proteion of	Office Action Summary	10/686,899	VARMA ET AL.
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THE MAILING DATE OF THIS COMMUNICATION.  Extensions of them may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely fited after SD (6) MONTHS from the enaling date of this communication. epy within the statistory minimum at thisty (20) days will be considered first).  I NO parted for reply is genified above, the materimus aboutly prior billagely and will be used (5) (6) MONTHS from the enaling date of this communication. Pallive to reply will be act or extended period for reply vill. by statistic, cause the application to become ABANDONED (SEU.S.C.§ 133). Any reply-cented by the Office date then three enalistic after the maling date of this communication, even if timely filed, may reduce any caused patent time edjeatment. See 37 CFR 1.704(b).  Status  1) □ Responsive to communication(s) filed on 27 April 2005.  2a) □ This action is FINAL. 2b) □ This action is non-final.  3) □ Since this application is in condition for allowance except for formal matters, prosecution as to the ments is closed in accordance with the practice under Ex parte Queyle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) □ Claim(s) 1.24 is/are pending in the application.  4a) ○ Claim(s) 1.24 is/are pending in the application.  4a) ○ Claim(s) 2.24 is/are allowed.  5) □ Claim(s) 2.24 is/are allowed.  5) □ Claim(s) 2.34 is/are objected to.  7) □ Claim(s) 2.34 is/are objected to.  8) □ Claim(s) 2.34 is/are objected to.  9) □ The precification is objected to restriction and/or election requirement.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) □ The orath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. § 119  12) □ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  3) □ All b) □ Some * ○ □ None		appears on the cover sheet w	vith the correspondence address
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Application/Control Number: 10/686,899

Art Unit: 2121



#### UNITED STATES PATENT AND TRADEMARK OFFICE

P.O. Box 1450, Alexandria, Virginia 22313-1450 - www.uspto.gov

### Examiner's Detailed Office Action

- 1. This Office Action is responsive to application 10/686,899, filed October 16, 2003.
- 2. Claims 1-24 have been examined.

### Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. The invention as disclosed in claim 1 is rejected under 35 U.S.C. 101 as being non-statutory subject matter. While applicant's invention is directed towards technological arts. Applicant's claim language is not limited to practical applications. In particular, examiner has found the claimed subject matter, to be one of three exclusions recognized, outside the statutory category of invention, an abstract idea. Examiner contends that applicant's invention as claimed relates to software manipulation (software program), a computational model or a mathematical manipulation of a function or equation, as such, a process that merely manipulates an abstract idea or performs a purely mathematical algorithm is nonstatutory despite the fact that it might

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inherently have some usefulness. In Sarkar, 588 F.2d at 1335, 200 USPQ at 139, the court explained why this approach must be followed:

No mathematical equation can be used, as a practical matter, without establishing and substituting values for the variables expressed therein. Substitution of values dictated by the formula has thus been viewed as a form of mathematical step. If the steps of gathering and substituting values were alone sufficient, every mathematical equation, formula, or algorithm having any practical use would be per se subject to patenting as a "process" under 101. Consideration of whether the substitution of specific values is enough to convert the disembodied ideas present in the formula into an embodiment of those ideas, or into an application of the formula, is foreclosed by the current state of the law.

Furthermore, for such subject matter to be statutory, the claimed process must be limited to a practical application of the abstract idea or mathematical algorithm in the technological arts. See Alappat, 33 F.3d at 1543, 31 USPQ2d at 1556-57 (quoting Diamond v. Diehr, 450 U.S. at 192, 209 USPQ at 10). See also Alappat 33 F.3d at 1569, 31 USPQ2d at 1578-79 (Newman, J., concurring) ("unpatentability of the principle does not defeat patentability of its practical applications") (citing O 'Reilly v. Morse, 56 U.S. (15 How.) at 114-19). A claim is limited to a practical application when the method or system, as claimed, produces a concrete, tangible and useful result; i.e., the method recites a step or act of producing something that is concrete, tangible and useful. See AT &T, 172 F.3d at 1358, 50 USPQ2d at 1452. See MPEP § 2106(IV) Applicant is advised to make the appropriate corrections in an attempt to gain patentability. The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02. Remember, the claims define the property rights provided by a patent, and thus require careful scrutiny. Therefore, it is not enough to set forth invention in the specification. The claims must also reflect the scope and breath of applicant's invention.

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5. Therefore, claim 1 is rejected under 35 USC § 101.

6. It should be noted that if the claimed subject matter were amended to recite the invention

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of which, being implemented on a computer or processor or computer-implemented method or

process or whatever word(s) or phrase(s) the written description of the specification recites for

that feature(s) of the computer. The rejection under 35 USC § 101 would be withdrawn.

7. Finally, although the subject matter of claims 1-24 appears to define over the prior art.

Any indication of allowability or allowable subject matter is being held in abeyance pending the

resolution of the Title 35 USC § 101 issues.

# Correspondence Information

8. Any inquires concerning this communication or earlier communications from the examiner should be directed to Michael B. Holmes, who may be reached Monday through Friday, between 8:00 a.m. and 5:00 p.m. EST. or via telephone at (571) 272-3686 or facsimile transmission (571) 273-3686 or email Michael holmesb@uspto.gov.

If you need to send an Official facsimile transmission, please send it to (571) 273-8300.

If attempts to reach the examiner are unsuccessful the Examiner's Supervisor, Anthony Knight, may be reached at (571) 272-3687.

Hand-delivered responses should be delivered to the Receptionist @ (Customer Service Window Randolph Building 401 Dulany Street Alexandria, VA 22313), located on the first floor of the south side of the Randolph Building.

Art Unit: 2121

## Michael B. Holmes

Patent Examiner
Artificial Intelligence
Art Unit 2121

United States Department of Commerce Patent & Trademark Office

Friday, July 22, 2005

MBH

LEO PICARD SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2100